



## **Generating Audio Phone and Video Phone Reports**

An IP phone has a physical relationship with a switch and a logical relationship with a Cisco Unified Communications Manager. Phone reports provide a combined view of both of these relationships, making it easy for you to track and resolve IP phone and video phone problems. Operations Manager collects phone inventory data as scheduled (see Working with IP Phone Discovery, page 16-40) and collects additional data every 5 minutes to determine whether phone status has changed. Audio Phones and Applications reports provide detailed phone inventory and status information. If you have the required software license, you can also view similar reports for video phones.

This section includes the following topics:

- Using Audio Phones and Applications Reports, page 13-1
- Understanding IP Phone Movement Tracking, page 13-28
- Understanding Phone Polling, page 13-28
- Using Video Phones Reports, page 13-28
- Viewing Other Reports, page 13-47

## **Using Audio Phones and Applications Reports**

Note

Audio Phones and Applications reports do not include data for video phones. See Using Video Phones Reports, page 13-28.

Audio Phones and Applications reports provide inventory and IP status change reports:

- Inventory reports—Provide detailed IP phone data, reflecting the current status of IP phones in your network. These reports enable you to search for a few phones, list a specific set of phones—such as phones connected to a switch, phones in SRST mode and phones that are CTI applications—or view all phones and lines:
  - Search—Use Search to view information for a few IP phones or a single IP phone; search enables you to find phones using all or part of an extension number, IP address, or MAC address. See Searching for IP Phones, page 13-3.

- Inventory Analysis—Use the Inventory Analysis report to display IP phones that meet criteria that you specify; for example, IP phones that are registered to a particular Cisco Unified Communications Manager or IP phones that are not connected to particular switches. See Generating the Inventory Analysis Report, page 13-5 and Understanding IP Phone Inventory Reports, page 13-11.
- All IP Phones/Lines—Use the All IP Phones/Lines report to view data for all IP phones that Operations Manager is monitoring. See Generating the All IP Phones/Lines Report, page 13-8 and Understanding IP Phone Inventory Reports, page 13-11.
- SRST IP Phones—Use the SRST IP phones report to view data for IP phones that are configured for Survivable Remote Site Telephony (SRST) only. See Generating the SRST IP Phones Report, page 13-8 and Understanding IP Phone Inventory Reports, page 13-11.



- **Note** IP phones that are configured for SRST are also included in the All IP Phones/Lines report and can be included in the Inventory Analysis report.
- SIP Phones—Use the SIP Phones report to view data for all SIP phones that Operations Manager is monitoring. See Generating the SIP Phones Report, page 13-9 and Understanding IP Phone Inventory Reports, page 13-11.
- IP Communicators—Use the IP Communicators report to view data for IP Communicators. See Generating the IP Communicators Report, page 13-9 and Understanding IP Phone Inventory Reports, page 13-11.



IP Communicators are also included in the All IP Phones/Lines and All CTI Applications reports, and can be included in the Inventory Analysis report.

- All CTI Applications—Use the All CTI Applications report to view data for CTI applications. See Generating the All CTI Applications Report, page 13-9.

When a web interface is accessible for an IP phone, you can open it from most IP phone reports by clicking the hyperlink for one of the following:

- Extension number
- MAC address
- IP address

For more information, see Opening an IP Phone Web Interface, page 13-18.

- IP Phone Outage Status reports—Provide data for IP phones that have undergone a status change during the previous 1 to 30 days:
  - **IP Phone Move**—Use the IP Phone Move report to view data for phones that have been connected to a different switch or switch port or that have registered to a different Cisco Unified Communications Manager. See Using the IP Phone Move Report, page 13-21.
  - Duplicate MAC/IP Address—See Using the Duplicate MAC/IP Address Report, page 13-26.
  - Extension Number Change—See Using the Extension Number Changes Report, page 13-24.
  - Suspect Phone—Use the Suspect Phone report to view data for phones that are not registered to a Cisco Unified Communications Manager or that have attempted to register and failed. See Using the Suspect Phone Report, page 13-25.
  - **Removed**—See Using the Removed IP Phones Report, page 13-23.

IP Phone Audit—Use the IP Phone Audit report to obtain a summary of changes, including data for phones that have moved, been removed, undergone an extension number change, appeared in inventory with a duplicate MAC or IP address, or become suspect. See Using the IP Phone Audit Report, page 13-22.

For more information, see the following topics:

- Understanding the Time Period Covered by Phone Status Changes Reports, page 13-20
- Tracking Phone Outage Status when a Cisco Unified Communications Manager Is Down, page 13-21

## **Generating IP Phone Inventory Reports**

This topic includes the following:

- Searching for IP Phones, page 13-3
- Generating the Inventory Analysis Report, page 13-5
- Generating the All IP Phones/Lines Report, page 13-8
- Generating the SRST IP Phones Report, page 13-8
- Generating the SIP Phones Report, page 13-9
- Generating the IP Communicators Report, page 13-9
- Generating the All CTI Applications Report, page 13-9
- Generating the All ATA Devices Report, page 13-10
- Generating the Cisco 1040 Sensors Report, page 13-10
- Understanding the Associated Phone and Phone Detail Reports, page 13-11

### **Searching for IP Phones**

Use Search to find one or only a few IP phones in your network. Search displays information for one phone at a time; you can page back and forth to view information for each phone when multiple phones are found. You can search for phones using all or part of an extension number, IP address, or MAC address.

When you want to find many phones—for example, all phones registered with a Cisco Unified Communications Manager or all phones connected to a switch—use the Inventory Analysis report; see Generating the Inventory Analysis Report, page 13-5.

For information on how phone counts are displayed in Operations Manager windows, see How Are Phone Counts Displayed in Views and Reports?, page 1-19.

Step 1 Select Reports > Audio Phones and Applications > Search. The Find IP Phones page appears.

- **Step 2** In the Find IP Phones Where pane:
  - **a**. Select one of the following:
    - Extension number
    - IP address
    - MAC address

- **b**. Then select one of the following:
  - is exactly
  - begins with
  - contains
  - ends with
- c. Enter a value.
- **Step 3** Click **View**. The IP Phone Details dialog box appears, displaying the information described in the following table.

| Row                       | Description   |
|---------------------------|---|
| Extension                 | Extension number of the IP phone; for example, 4000. Click the hyperlink to open the web interface on the IP phone (see Opening an IP Phone Web Interface, page 13-18).   |
| IP Address                | IP address of the IP phone; for example, 10.76.38.65. Click the hyperlink to see more details of the IP phone (see Using Audio Phones and Applications Reports, page 13-1).                                     |
| MAC Address               | MAC address of the IP phone; for example, 003094c40454, or<br>00-30-94-c4-04-54. Click the hyperlink to open the web interface on the IP<br>phone (see Using Audio Phones and Applications Reports, page 13-1). |
| CCM Address               | Address of the Cisco Unified Communications Manager (CCM) with which the IP phone is registered; for example, 10.76.38.70.  |
| Switch Address            | IP address of the switch to which the IP phone is connected; for example, 10.76.29.162.   |
| Switch Name               | Switch to which the IP phone is connected.  |
| Switch Port               | Switch port to which the IP phone is connected; for example, Fa0/12.  |
| Port Status               | Status of the switch port to which the IP phone is connected: up or down.   |
| IP Phone Outage<br>Status | Cisco Unified Communications Manager registration status of the IP phone:   |
|                           | • yes—The IP phone is registered with a Cisco Unified Communications Manager.   |
|                           | • no—The IP phone is not registered with a Cisco Unified Communications Manager.  |
| IP Phone Model            | Cisco IP phone model number; for example, 7902, 7905, 7910, 7912, 7920, 7935, 7940, 7960, or 7970.  |
| Protocol                  | Protocol the phone is using to communicate with Cisco Unified Communications<br>Manager.  |
|                           | <b>Note</b> Only SCCP and SIP phones will be discovered. H.323 and MGCP protocols are not currently supported.  |
| VLAN Name                 | Name of the VLAN in the switch (a user-defined name); for example, voice.   |
| VLAN ID                   | ID of the VLAN in the switch to which the IP phone is connected; for example, 100.  |
| SRST Router               | IP address of the router that the phone is using for SRST.  |

Table 13-1IP Phone Details

| Row            | Description   |  |
|----------------|---|--|
| SRST Mode      | Can be one of the following:  |  |
|                | • yes—The phone is in SRST mode   |  |
|                | • no—The phone is not in SRST mode  |  |
|                | • ?—The phone is suspected to be in SRST mode   |  |
|                | • -(dash)—The phone is not an SRST phone  |  |
| Serial No.     | IP phone serial number  |  |
|                | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |
| Application ID | Identifier of the firmware running on the phone   |  |
|                | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |
| Load ID        | Identifier of the factory-installed load running on the phone   |  |
|                | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |

#### Table 13-1IP Phone Details (continued)

- **Step 4** To display the information in print-friendly format in a new browser window, click **Print**; print the information, using the browser print function.
- **Step 5** If search results include more than one phone, view them by clicking **Next** or **Prev**.

For more information, see the following topics:

- Launching Tests for Selected Audio Phones, page 13-18
- Opening an IP Phone Web Interface, page 13-18
- Obtaining Usernames from LDAP for IP Phone Reports, page 13-18
- Troubleshooting Tips for Audio Phones and Applications Reports and Video Phones Reports, page 13-19

### **Generating the Inventory Analysis Report**

Use Inventory Analysis to search for IP phones in your network and display them in a report.

#### **Before You Begin**

Inventory Analysis searches for phones using:

- An implicit "or" within each field—If you enter more than one value in a field, Inventory Analysis searches for phones that match any value that you entered.
- An implicit "and" for all fields—If you enter values in more than one field, Inventory Analysis searches for phones that match at least one value from each field.

For example, if you enter two phone models, such as 7910 and 7935, in the IP Phone Model field, the Inventory Analysis report that results includes all phones of these models. If, in addition, you enter a VLAN ID and a switch, Inventory Analysis searches for phones that meet all these criteria; the report that results includes only phones of the models specified that are connected to the switch and in the VLAN that you selected.

## **Step 1** Select **Reports > Audio Phones and Applications > Inventory Analysis**. The Find IP Phones page appears.

**Step 2** Enter values in one or more fields, described in the following table.

| GUI Element                                     | Description/Action  |
|---|---|
| Find IP Phones<br>Where list boxes and<br>field | From left to right:   |
|   | • Select one of the following:  |
|   | – Extension number  |
|   | – IP Address  |
|   | – MAC Address   |
|   | • Select one of the following:  |
|   | - is exactly  |
|   | - begins with   |
|   | – contains  |
|   | – ends with   |
|   | • Enter a value.  |
| VLAN Name field                                 | Enter the name of the VLAN.   |
| VLAN ID field                                   | Enter the VLAN ID.  |
| IP Phone Outage                                 | Select one:   |
| status radio buttons                            | • Registered  |
|   | • Unregistered  |
|   | • All—Registered and unregistered phones.                                       |
| SRST radio buttons                              | Select one:   |
|   | • SRST—Configured to fail over to an SRST router in case of a WAN link failure. |
|   | • Non-SRST—Not configured for SRST.   |
|   | • All—SRST and non-SRST.  |
| Protocol radio<br>buttons                       | Select one:   |
|   | • SCCP—Phones using Skinny Client Control Protocol.                             |
|   | • SIP—Phones using Session Initiation Protocol.                                 |
|   | • All—SCCP and SIP.   |

| GUI Element                  | Description/Action  |
|------------------------------|---|
| IP Phone Type field          | Enter a comma-separated list of phone models. Edit the entries in the field directly or select from a list of phone types, as follows:  |
|                              | <b>1.</b> Click IF Phone Types list appears.  |
|                              | <ol> <li>Select the desired IP phone types from the list. (Use the Control key or the Shift key to select more than one IP phone type from the list.)</li> </ol>  |
|                              | 3. Click OK.  |
| CCM/CCM Cluster/<br>CME pane | • Exclude check box—Deselected by default. Select to exclude phones that belong to any Cisco Unified Communications Manager, Cisco Unified Communications Manager cluster, and Cisco Unified Communications Manager Express in the list box.                      |
|                              | • List box—Enter a comma-separated list of Cisco Unified Communications<br>Managers, Cisco Unified Communications Manager clusters, and<br>instances of Cisco Unified Communications Manager Express, or select<br>them as follows:                               |
|                              | <ol> <li>Click Intervention of the select CCM/CCM Cluster/CME dialog box appears.</li> </ol>  |
|                              | <ol> <li>In the CCM/CCM Cluster/CME Selector, expand groups and select<br/>one or more of the following: Cisco Unified Communications<br/>Manager, Cisco Unified Communications Manager Cluster, and Cisco<br/>Unified Communications Manager Express.</li> </ol> |
|                              | <ol> <li>Click OK. The dialog box closes and the Find IP Phones screen<br/>displays your selections in the CCM/CCM Cluster/CME list box.</li> </ol>   |
| Switch pane                  | • Exclude check box—Deselected by default. Select to exclude phones that are connected to any switch in the list box.   |
|                              | • List box—Enter a comma-separated list of switches, or select them as follows:   |
|                              | <ol> <li>Click Inventory Analysis Switch Selection dialog box appears.</li> </ol>   |
|                              | 2. In the Switch Selector, expand groups and select switches.   |
|                              | <ol> <li>Click OK. The dialog box closes and the Find IP Phones screen<br/>displays your selection in the Switch list box.</li> </ol>   |
| SRST Router pane             | • Exclude check box—Deselected by default. Select to exclude phones that use any SRST router in the list box.   |
|                              | • List box—Enter a comma-separated list of routers, or select them as follows:  |
|                              | <ol> <li>Click . The Inventory Analysis Router Selection dialog box appears.</li> </ol>   |
|                              | 2. In the Router Selector, expand groups and select routers.  |
|                              | <ol> <li>Click OK. The dialog box closes and the Find IP Phones screen<br/>displays your selection in the Router list box.</li> </ol>   |

**Step 3** Click **View**. The Inventory Analysis Report appears in another window. See Understanding IP Phone Inventory Reports, page 13-11.

You might not be able to see the list of Cisco Unified Communications Manager or switches in the popup window that appears when you click is the population of the population

- Check the status of PIFServer by using the command pdshow PIFServer from the command line.
- If PIFServer is down, use the Common Services start function. To do this:
  - 1. From the Operations Manager home page, click **CiscoWorks** in the upper right-hand corner of the window. The CiscoWorks home page opens.
  - Under Common Services, select Server > Admin > Processes. The Process Management page appears, displaying process names in a table.
  - **3.** Locate the PIFServer process in the table, select the check box for it, and click **Start**.

# <u>Note</u>

Alternatively, you can bring PIFServer up using the command **pdexec PIFServer** from the command line. Use this approach if, for example, the web server is down.

## **Generating the All IP Phones/Lines Report**

- Step 1 Select Reports > Audio Phones and Applications > Audio Phones/Lines. The Audio Phones/Lines window appears.
- **Step 2** Select **Audio Phones** from the list, and click **View**. The Audio Phones/Lines report appears, displaying the information described in .

## Note

You can also generate the All IP Phones/Lines from the Monitoring Dashboard tab by selecting **Click to View All Phones** in the IP Phone Outage Status pane.

### **Generating the SRST IP Phones Report**

The SRST IP Phones report shows a list of phones that are configured for Survivable Remote Site Telephony (SRST).

Step 1 Select Reports > Audio Phones and Applications > SRST IP Phones. The SRST IP Phones report appears in a new window, displaying information for the SRST configuration only. For more information, see Understanding IP Phone Inventory Reports, page 13-11.

Report appears, displaying the information described in the following table.

## **Generating the All CTI Applications Report**

The All CTI Applications report lists Computer Telephony Interface (CTI) device applications registered with the Cisco Unified Communications Manager that Operations Manager monitors. The following applications are registered to the Cisco Unified Communications Manager as CTI devices or CTI ports:

- Cisco IP Communicators
- Cisco Personal Assistant
- **Cisco Customer Response Applications**
- Cisco IP Contact Center
- **Cisco Emergency Responder**
- Step 1 Select Reports > Audio Phones and Applications > All CTI Applications. The All CTI Applications

- **Generating the IP Communicators Report** 
  - Note

IP Communicators are also included in the All IP Phones/Lines and the All CTI Applications reports and they can be included in the Inventory Analysis report.

- Step 1 Select Reports > Audio Phones and Applications > IP Communicators. The IP Communicators report appears in a new window, displaying information for IP Communicators only. For more information, see Understanding IP Phone Inventory Reports, page 13-11.

Generating the SIP Phones Report

The SIP Phones report shows a list of SIP phones.

Select **Reports > Audio Phones and Applications > SIP Phones**. The SIP Phones report appears in a Step 1 new window, displaying information for SIP phones only. For more information, see Understanding IP Phone Inventory Reports, page 13-11.

| Column                     | Description   |
|----------------------------|---|
| Extension                  | Extension of the CTI Application (CTI Port/CTI Route Point).  |
| Application<br>Information | The defined name of the CTI application, as reported by the Cisco Unified<br>Communications Manager. If the application is not registered in CTI, this<br>field displays Not supported. |
| Registered                 | Whether or not the CTI Application is registered with the Cisco Unified Communications Manager: Yes or No.  |
| IP Address                 | • IP address of the CTI application (in case the application is a CTI port)   |
|                            | • IP address of the Cisco Unified Communications Manager (in case the application is a CTI Route Point)   |
| CCM Address                | Cisco Unified Communications Manager address.   |
| Device Type                | Type of the device.   |
| Device Description         | Description of the device.  |

| Table 13-2 | All CTI Applications Report |
|------------|-----------------------------|
|------------|-----------------------------|

## **Generating the All ATA Devices Report**

The All ATA Devices report lists all Advanced Technology Attachment (ATA) devices registered with the Cisco Unified Communications Manager that Operations Manager monitors.

Step 1 Select Reports > Audio Phones and Applications > All ATA Devices. The All ATA Devices report appears in a new window, displaying information for all ATA devices only. For more information, see Generating IP Phone Inventory Reports, page 13-3.

| Table 13-3 | All ATA Devices Report |
|------------|------------------------|
|------------|------------------------|

| <b>Columns and Buttons</b> | Description/Action                               |
|----------------------------|--|
| Device Name                | Name of the ATA device                           |
| Device Type                | ATA device type                                  |
| CCM Name                   | Name of the Cisco Unified Communications Manager |

### **Generating the Cisco 1040 Sensors Report**

The Cisco 1040 Sensors report lists all Cisco 1040 Sensors connected to the switches that Operations Manager monitors.

Step 1 Select Reports > Audio Phones and Applications > Cisco 1040 Sensors. The Cisco 1040 Sensors report appears in a new window, displaying information for Cisco 1040 Sensors only.For more information, see Generating IP Phone Inventory Reports, page 13-3.

| <b>Columns and Buttons</b> | Description/Action  |
|----------------------------|---|
| Device ID                  | Device ID of the 1040 Sensor.                               |
| IP Address                 | IP address of the 1040 Sensor.                              |
| Switch Name                | Name of the switch to which the 1040 Sensor is connected.   |
| Switch Address             | IP address of the switch to which 1040 Sensor is connected. |
| Switch Port                | Switch port to which 1040 Sensor is connected.              |

Table 13-4 Cisco 1040 Sensors Report

### **Understanding the Associated Phone and Phone Detail Reports**

You can launch these reports from the Service Level View, the Alert Details page, or the Detailed Device View. Depending on the device that you have selected, the report will list one of the following:

- Phones that are connected to the switch.
- Phones that are registered to Cisco Unified Communications Manager or Cisco Unified Communications Manager Express.

The report contains the data listed in Table 13-5. For information on how phone counts are displayed in Device Management Summary window, see How Are Phone Counts Displayed in Views and Reports?, page 1-19.

## **Understanding IP Phone Inventory Reports**

Table 13-5 describes the data displayed in the following reports:

- Inventory Analysis—Includes phones that match criteria that you specify.
- All IP Phones/Lines—Includes all IP phones, including IP Communicators and IP phones that are configured for SRST.



You can filter the All IP Phones/Lines report to include only the phones that you want to see.

- SRST IP Phones—Includes only phones that are configured for SRST.
- SIP Phones—Includes only phones that use Session Initiation Protocol (SIP).
- IP Communicators—Includes IP Communicators only.
- Associated Phones and Phone Details—Includes only phones associated with a selected device; for example, phones connected to a switch or phones registered to Cisco Unified Communications Manager (or Cisco Unified Communications Manager Express).

By default, these reports display only these columns: Extension, User, IP Address, MAC Address, Model, Regd, CCM, Switch Address, and Port. You can hide these columns and select among additional columns to display. See Selecting Columns to Display and to Hide on a Phone Inventory Report, page 13-17.

Table 13-5 describes all possible columns of data that can appear on these reports. For information on how phone counts are displayed in Operations Manager windows, see How Are Phone Counts Displayed in Views and Reports?, page 1-19.

| Columns and Buttons | Description/Action   |  |
|---------------------|--|--|
| Number              | The row number; starting from 1.   |  |
| Check box           | Select any phones that you would like to:  |  |
|                     | • Print—Include selected phones in a new window in print-friendly format. (See Phones Report Tool Buttons, page 13-13.)  |  |
|                     | • Export to a file—Include selected phones in a PDF or CSV file. (See Phones Report Tool Buttons, page 13-13.)   |  |
|                     | • Launch a test on—Include selected phones in tests that you create<br>from the Launch button when it is present at the bottom of the report.<br>(See Launching Tests for Selected Audio Phones, page 13-18.)  |  |
| Extn.               | Extension number of the IP phone; for example, 4000. Click the hyperlink to see more details of the IP phone (see Opening an IP Phone Web Interface, page 13-18).  |  |
| User                | Username obtained using LDAP if you have configured an LDAP server<br>in Operations Manager. See Configuring LDAP, page 16-43 and Obtaining<br>Usernames from LDAP for IP Phone Reports, page 13-18.   |  |
| IP Address          | IP address of the IP phone; for example, 10.76.38.65. Click the hyperlink to see more details of the IP phone (see Opening an IP Phone Web Interface, page 13-18).   |  |
| MAC Address         | MAC address of the IP phone; for example, 003094c40454, or 00-30-94-c4-04-54. Click the hyperlink to see more details of the IP phone (see Opening an IP Phone Web Interface, page 13-18).   |  |
| Model               | Model number of the IP phone; for example, 7902, 7905, 7910, 7912, 7920, 7935, 7940, 7960, or 7970.  |  |
| Protocol            | Protocol the phone is using to communicate with Cisco Unified<br>Communications Manager or Cisco Unified Communications Manager<br>Express.  |  |
|                     | <b>Note</b> Only SCCP and SIP phones will be discovered. H.323 and MGCP protocols are not currently supported.   |  |
| Regd.               | Registration status of the IP phone with respect to Cisco Unified<br>Communications Manager or Cisco Unified Communications Manager<br>Express. Displays <b>yes</b> if the IP phone is registered or <b>no</b> if the IP phone is<br>not registered. |  |
| ССМ                 | One of the following:  |  |
|                     | CCM—Cisco Unified Communications Manager   |  |
|                     | CCE—Cisco Unified Communications Manager Express   |  |
| CCM/CME Name        | DNS name of the Cisco Unified Communications Manager or Cisco<br>Unified Communications Manager Express with which the IP phone is<br>registered.  |  |
| CCM/CME Address     | IP address of the Cisco Unified Communications Manager or Cisco<br>Unified Communications Manager Express with which the IP phone is<br>registered.  |  |
| Switch Name         | Name of the switch to which the IP phone is connected.   |  |

| Table 13-5 IP Phor | ne Reports |
|--------------------|------------|
|--------------------|------------|

| <b>Columns and Buttons</b> | Description/Action  |  |
|----------------------------|---|--|
| Switch Address             | IP address of the switch to which the IP phone is connected.  |  |
| Port                       | Switch port used by the IP phone; for example, Fa0/12.  |  |
| Port Status                | Status of the port used by the IP phone: up or down.  |  |
| VLAN Name                  | Name of the VLAN (user-defined name); for example, voice.   |  |
| VLAN ID                    | ID of the VLAN for the IP phone; for example, 100.  |  |
| SRST Mode                  | One of the following:   |  |
|                            | • yes—The phone is in SRST mode   |  |
|                            | • no—The phone is not in SRST mode  |  |
|                            | • ?—The phone is suspected to be in SRST mode   |  |
|                            | • —(dash)—The phone is not an SRST phone  |  |
| SRST Router                | One of the following:   |  |
|                            | • IP address of the router that the phone is using for SRST   |  |
|                            | • —(dash)   |  |
| Serial No.                 | IP phone serial number  |  |
|                            | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |
| Application ID             | Identifier of the firmware running on the phone   |  |
|                            | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |
| Load ID                    | Identifier of the factory-installed load running on the phone   |  |
|                            | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |
| Launch button              | Click and select a menu item to configure tests for the IP phones selected on this report.              |  |

| Table 13-5 | IP Phone Reports (continued) |
|------------|------------------------------|
|------------|------------------------------|

For more information, see the following topic:

## **Phones Report Tool Buttons**

•

The following report tool buttons might appear in the upper-right corner of Audio Phones and Applications or Video Phone reports.

|   | Opens a filter dialog box for refining the report. See Filtering Audio Phones and Applications Reports, page 13-14.  |
|---|--|
|   | Exports the current report to a PDF or CSV file to save on your local system.  |
| e | <b>Note</b> Enables you to export data for all phones, selected phones, or a range of record numbers.  |
|   | Opens a new window with the report formatted for printing from your browser.   |
| 6 |  |
| R | Opens a column selector dialog box from which you can select those columns of a report to hide and those to display. See Selecting Columns to Display and to Hide on a Phone Inventory Report, page 13-17. |
|   | Opens context-sensitive help.  |
| ? |  |

### Table 13-6 Phone Report Tool Buttons

## **Filtering Audio Phones and Applications Reports**

From an Audio Phones and Applications report, click the Filter button () when present. A filter dialog box opens.

۵, Note

Filtering is performed using:

- An implicit "or" within each field—If you enter more than one value in a field, phones that match any value are included in the report.
- An implicit "and" for all fields—If you enter values in more than one field, phones that match at least one value from each field are included in the report after filtering.

For example, if you enter two phone models, such as 7910 and 7935, in the IP Phone Model field, the report that results includes all phones of these models. If, in addition, you enter a VLAN ID and a switch, the report is filtered to include only phones of the models specified that are connected to the switch and in the VLAN that you selected.

**Step 1** Enter values in one or more fields, described in the following table.

| GUI Element                | Description/Action  |
|----------------------------|---|
| Find IP Phones             | From left to right:   |
| where list boxes and field | • Select one of the following:  |
|                            | – Extension number  |
|                            | – IP Address  |
|                            | – MAC Address   |
|                            | • Select one of the following:  |
|                            | – is exactly  |
|                            | – begins with   |
|                            | – contains  |
|                            | – ends with   |
|                            | • Enter a value.  |
| VLAN Name field            | Enter the name of the VLAN.   |
| VLAN ID field              | Enter the VLAN ID.  |
| IP Phone Outage            | Select one:   |
| Status radio buttons       | • Registered  |
|                            | • Unregistered  |
|                            | • All—Registered and unregistered phones.   |
| SRST radio buttons         | Select one:   |
|                            | • SRST—Configured to fail over to an SRST router in case of a WAN link failure.   |
|                            | • Non-SRST—Not configured for SRST.   |
|                            | • All—SRST and non-SRST.  |
| IP Phone Type field        | Enter a comma-separated list of phone models. By default, all supported phone models are included in this field, including IP Communicator. Edit the entries in the field directly or select from a list of phone models, as follows: |
|                            | 1. Click . The Select IP Phone Types list appears.  |
|                            | <ol> <li>Select the desired IP phone types from the list. (Use the Control key or the Shift key to select more than one IP phone type from the list.)</li> </ol>  |
|                            | 3. Click OK.  |

| GUI Element      | Description/Action  |
|------------------|---|
| CCM/CME pane     | • Exclude check box—Deselected by default. Select to exclude phones that belong to any Cisco Unified Communications Manager, Cisco Unified Communications Manager cluster, and Cisco Unified Communications Manager Express in the list box.                                |
|                  | • List box—Enter a comma-separated list of Cisco Unified Communications<br>Managers, Cisco Unified Communications Manager clusters, and<br>instances of Cisco Unified Communications Manager Express, or select<br>them as follows:   |
|                  | <ol> <li>Click Intervention of the select CCM/CCM Cluster/CME dialog box appears.</li> </ol>  |
|                  | <ol> <li>In the CCM/CCM Cluster/CME Selector, expand groups and select<br/>one or more instances of the following: Cisco Unified<br/>Communications Manager, Cisco Unified Communications Manager<br/>cluster, and Cisco Unified Communications Manager Express.</li> </ol> |
|                  | <b>3.</b> Click <b>OK</b> . The dialog box closes and the Find IP Phones screen displays your selections in the CCM/CCM Cluster/CME list box.   |
| Switch pane      | • Exclude check box—Deselected by default. Select to exclude phones that are connected to any switch in the list box.   |
|                  | • List box—Enter a comma-separated list of switches, or select them as follows:   |
|                  | <ol> <li>Click Internet of the Inventory Analysis Switch Selection dialog box appears.</li> </ol>   |
|                  | 2. In the Switch Selector, expand groups and select switches.   |
|                  | <b>3.</b> Click <b>OK</b> . The dialog box closes and the Find IP Phones screen displays your selection in the Switch list box.   |
| SRST Router pane | • Exclude check box—Deselected by default. Select to exclude phones that use any SRST router in the list box.   |
|                  | • List box—Enter a comma-separated list of switches, or select them as follows:   |
|                  | 1. Click Inventory Analysis Router Selection dialog box appears.  |
|                  | 2. In the Router Selector, expand groups and select routers.  |
|                  | <b>3.</b> Click <b>OK</b> . The dialog box closes and the Find IP Phones screen displays your selection in the Router list box.   |

**Step 2** Click **OK**. The filter dialog box closes and the IP phone report refreshes. For more information, see Understanding IP Phone Inventory Reports, page 13-11.

You might not be able to see the list of Cisco Unified Communications Manager or switches in the popup window that appears when you click is occurs when the PIFServer process is down. Do the following:

• Check the status of PIFServer by using the command pdshow PIFServer from the command line.

- If PIFServer is down, use the Common Services start function. To do this:
  - 1. From the Operations Manager home page, click **CiscoWorks** in the upper right-hand corner of the window. The CiscoWorks home page opens.
  - 2. Under Common Services, select Server > Admin > Processes. The Process Management page appears, displaying process names in a table.
  - 3. Locate the PIFserver process in the table, select the check box for it, and click Start.



Alternatively, you can bring PIFServer up using the command **pdexec PIFServer** from the command line. Use this approach if, for example, the web server is down.

## Selecting Columns to Display and to Hide on a Phone Inventory Report

By default, phone reports display these columns of data:

- Extension
- User
- IP Address
- MAC Address
- Model
- Regd
- CCM
- Switch Address
- Port

For definitions, see Understanding IP Phone Inventory Reports, page 13-11. Use this procedure to hide any of the default columns and select among additional columns of data to display.

- **Step 1** In the upper-right corner of a phone report, click the Tools button . A column selector dialog box appears.
- **Step 2** To hide a column, place it on the Hidden Column(s) list:
  - **a.** Select the column by name from the Displayed Column(s) list.
  - **b**. Click the **< Remove <<** button. The column name appears on the Hidden Column(s) list.



To select adjacent columns, hold down the Shift key. To select columns that are not adjacent, hold down the Ctrl key.

- **Step 3** To display a column, place it on the Displayed Column(s) list:
  - **a.** Select the column by name from the Hidden Column(s) list.
  - b. Click the < Add << button. The column name appears on the Displayed Column(s) list.
- **Step 4** Click **Update**. The report window refreshes, displaying only columns from the Displayed Column(s) list.



Your selections do not affect other users and will remain in effect for this report until you log out of Operations Manager or until you change your selections.

## **Opening an IP Phone Web Interface**

You can open an IP phone web interface from an Audio Phones and Applications report or a Video Phones report by clicking one of these hyperlinks when available:

- Extension number
- IP address
- MAC address

Another window opens with information directly from the phone, including network configuration details, device, port, and Ethernet information for the specified IP phone.

## **Obtaining Usernames from LDAP for IP Phone Reports**

Operations Manager can supply usernames on audio phone and video phone reports from a corporate LDAP server when the LDAP server is:

- Configured with information for all users.
- Not a secure LDAP server (does not use SSL authentication).
- Added to Operations Manager with the correct credentials and appropriate telephone number. The telephone number can be a phone number or a phone MAC address, depending on the LDAP configuration.

Usernames are updated in Operations Manager when IP phone discovery runs. IP phone discovery obtains users in the corporate directory that have the telephoneNumber attribute, and correlates data for them with information in Cisco Unified Communications Manager.

For more information, see the following topics:

• Understanding IP Phone Inventory Reports, page 13-11

### Launching Tests for Selected Audio Phones

When the Launch button is present at the bottom right-hand corner of an Audio Phones and Applications report or Video Phones report, you can select phones from the report, and configure tests on them using one of the available options:

- SRST Test—Select one or more phones. See Configuring a Single SRST Test as Needed, page 18-9.
- Phone Test—Select one or more phones. See Creating and Running a Phone Test on Demand, page 10-13.
- Synthetic Test—Select one phone only. See Creating Synthetic Tests, page 9-6.
- Phone Status Tests—Select one or more phones. See Adding a Phone Status Test—Using the Create Phone Status Test Page, page 8-4.

## **Troubleshooting Tips for Audio Phones and Applications Reports and Video Phones Reports**

This section includes the following tips:

- N/A or Not Available Appears in Audio Phones and Applications Reports and Video Phone Reports, page 13-19
- Cisco Wireless IP Phone 7920 Not Displayed in Audio Phones and Applications Reports, page 13-19
- Phones Missing from Audio Phones and Applications Reports, page 13-19

#### N/A or Not Available Appears in Audio Phones and Applications Reports and Video Phone Reports

If N/A or Not Available appears instead of data in a field, it means one of the following:

- The switch or the Cisco Unified Communications Manager is not monitored by Operations Manager. To correct this condition, add the switch or Cisco Unified Communications Manager to Operations Manager.
- Operations Manager cannot get the information from the switch or the Cisco Unified Communications Manager. To correct this condition, check the status of the switch or Cisco Unified Communications Manager in the Alerts and Events display. If the switch or Cisco Unified Communications Manager is unreachable, ensure that the connectivity is restored.
- For Audio Phones and Applications reports, if the phone is a Cisco Wireless IP Phone 7920, only logical information from Cisco Unified Communications Manager is displayed. Switch information is not available.

#### **Cisco Wireless IP Phone 7920 Not Displayed in Audio Phones and Applications Reports**

For the Cisco Wireless IP Phone 7920 to be monitored in Operations Manager, its Aironet access point must also be monitored by Operations Manager. Only logical information from the Cisco Unified Communications Manager is displayed for this phone; switch information for the 7920 appears as N/A or Not Available.

In Cisco Unified Communications Manager releases prior to 4.0, the 7920 appears as a 7960. Therefore, Operations Manager also displays the 7920 as a 7960 for Cisco Unified Communications Manager releases prior to 4.0.



IP Phone Outage Status reports, such as IP Phone Audit and Suspect Phone reports, are not supported for the Cisco Wireless IP Phone 7920.

#### **Phones Missing from Audio Phones and Applications Reports**

If a report does not contain information about an IP phone, the phone might be one of the following:

- A synthetic phone—IP phones configured for synthetic tests (*synthetic phones*) do not appear in Audio Phones and Applications reports.
- An IP Communicator—Generate the IP Communicator Report. See Generating the IP Communicators Report, page 13-9.
- A CTI application—These phones appear on the All CTI Applications report. See Generating the All CTI Applications Report, page 13-9.

## **Using IP Phone Outage Status Changes Reports**

IP Phone Outage Status reports supply information for phones that have undergone a status change during the previous 1 to 30 days.

The IP Phone Audit report provides a summary of all of these changes (see Using the IP Phone Audit Report, page 13-22). Additional IP Phone Outage Status reports focus on particular types of changes, as shown in the following table.

| Phone Status Change  | Details in this Report   |
|--|--|
| Connection—Connected to a different switch or switch port                                  | Using the IP Phone Move Report, page 13-21   |
| Duplicate IP address or MAC address  | Using the Duplicate MAC/IP Address Report, page 13-26                                    |
| Extension number change  | Using the Extension Number Changes Report, page 13-24                                    |
| Registration with Cisco Unified<br>Communications Manager:                                 |  |
| <ul> <li>Registered to a different Cisco<br/>Unified Communications<br/>Manager</li> </ul> | Using the IP Phone Move Report, page 13-21<br>Using the Suspect Phone Report, page 13-25 |
| • Not registered   |  |
| • Attempted to register and failed   |  |
| Removed  | Using the Removed IP Phones Report, page 13-23   |

## **Understanding the Time Period Covered by Phone Status Changes Reports**

When you generate an IP Phone Outage Status or Video Phone Status Changes report, your results can be affected by the time zones in which each of following resides:

- Your client system—Operations Manager calculates the time period (previous 24 hours through previous 7 to 30 days, depending on the report) for Phone Status Changes reports based on the date and time on your client system.
- Operations Manager system—Operations Manager records some audits, such as extension number changes, based on the time that the change is detected on the Operations Manager system.
- Cisco Unified Communications Manager—Operations Manager records some audits, such as phone moves, based on the time on Cisco Unified Communications Manager that changes were detected.

If any of these systems is not in the same time zone as your system, you must take the time zone difference into account when you generate and view Phone Status Changes reports.

 $\mathcal{P}$ Tip

If the audit date and time on the Operations Manager system is inconsistent with those shown in the IP Phone Outage Status or Video Phone Status Changes report, make sure that all Cisco Unified Communications Managers in the network are set to synchronize.

## Tracking Phone Outage Status when a Cisco Unified Communications Manager Is Down

If a Cisco Unified Communications Manager that is configured with a backup goes down, audio phones and video phones fail over to the backup Cisco Unified Communications Manager. Operations Manager stores audit records for the phones that register with the backup and these status changes are included in IP Phone Outage Status and Video Phone Status Changes reports.

Operations Manager does not store audit records in the following cases:

- An entire Cisco Unified Communications Manager cluster goes down.
- A Cisco Unified Communications Manager for which a backup is not configured goes down.

Therefore, status changes for the phones registered to Cisco Unified Communications Managers in these situations are not included in IP Phone Outage Status and Video Phone Status Changes reports.

۵, Note

During the time that Cisco Unified Communications Manager is down, affected phones are listed on the IP Phone Outage Status Monitoring Dashboard where they remain for a minimum of 24 hours. See Getting Phone Alert Details, page 5-4.

## **Using the IP Phone Move Report**

The IP Phone Move report displays IP phones that have moved, including details about the phone before and after the move. The IP Phone Move report shows the time at which the IP phone move was detected, and not the time at which the move occurred.

Information for the IP Phone Move report is gathered every 5 minutes by IP Phone Movement Tracking (see Understanding IP Phone Movement Tracking, page 13-28). IP Phone Movement Tracking checks all the switches and Cisco Unified Communications Managers, identifies the list of changes, and generates the data on IP phone moves.

Note

**e** You obtain fresh data for the IP Phone Move report about once every 5 minutes. Close the report and regenerate it to refresh the data.

- Step 1 Select Reports > Audio Phones and Applications > IP Phone Status Changes > IP Phone Move. The IP Phone Status reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The IP Phone Move report appears, displaying the information described in the following table.

L

| Column         | Description  |
|----------------|--|
| Extension      | Extension number of the IP phone. The Extension column has two subcolumns—Old and New:                     |
|                | • Old—Extension number of the IP phone before it was moved.  |
|                | • New—Extension number of the IP phone after it was moved.   |
| IP Address     | IP address of the IP phone.  |
| MAC Address    | MAC address of the IP phone.   |
| CCM Address    | Cisco Unified Communications Manager address. The CCM Address column has two subcolumns:                   |
|                | • Old—CCM address of the IP phone before it was moved.   |
|                | • New—CCM address of the IP phone after it was moved.  |
| Switch Address | IP address of the switch to which the IP phone is connected. The Switch Address column has two subcolumns: |
|                | • Old—Switch address used by the IP phone before it was moved.   |
|                | • New—Switch address used by the IP phone after it was moved.  |
| Switch Port    | Switch port used by the IP phone. The Switch Port column has two subcolumns:                               |
|                | • Old—Switch port used by the IP phone before it was moved.  |
|                | • New—Switch port used by the IP phone after it was moved.   |
| Time Stamp     | Reflects the date and time that Operations Manager detected the IP phone move.                             |

## <u>P</u> Tip

Phones that have moved and do not run Cisco Discovery Protocol (CDP) do not appear in this report. For example, 30VIP and 12SP+ do not run CDP; you will not see move entries for them.

## **Using the IP Phone Audit Report**

The IP Phone Audit report shows the changes that have occurred in the managed IP phone network. For example, this report shows you the IP phones that have been added to or deleted from your network, or IP phone Outage status. Phone status changes occur, for instance, when a phone becomes unregistered with the Cisco Unified Communications Manager.

You can see what has changed within the last 30 days. Audits are maintained in the database for a period of 30 days, after which they are purged.

Information for the IP Phone Audit report is gathered by IP Phone Movement Tracking (see Understanding IP Phone Movement Tracking, page 13-28). IP Phone Movement Tracking runs every 5 minutes, so you can run the IP Phone Audit report and obtain fresh data about once every 5 minutes. This interval is not configurable.

- **Step 1** Select **Reports > Audio Phones and Applications > IP Phone Outage Status > IP Phone Audit**. The IP Phone Status reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The IP Phone Audit report appears, displaying the information described in the following table.

| Column          | Description   |  |
|-----------------|---|--|
| Extension       | Extension number of the IP phone.   |  |
| IP Address      | IP address of the IP phone.   |  |
| MAC Address     | MAC address of the IP phone.  |  |
| CCM/CME Address | Cisco Unified Communications Manager or Cisco Unified Communications<br>Manager Express address.  |  |
| Switch Address  | IP address of the switch to which the IP phone is connected.  |  |
| Switch Port     | Switch port used by the IP phone.   |  |
| Time            | Time of audit on the Cisco Unified Communications Manager.  |  |
|                 | Note Audit date and time are taken directly from Cisco Unified<br>Communications Manager without adjustment for time zone<br>differences, if any exist, between Cisco Unified Communications<br>Manager and Operations Manager systems. |  |
| Audit Type      | One of the following:   |  |
|                 | • add—Phone added to the network.   |  |
|                 | • remove—Phone removed from the network.  |  |
|                 | • unregistered—From Cisco Unified Communications Manager.   |  |
|                 | • registered—With Cisco Unified Communications Manager.   |  |



The IP Phone Audit report is not supported for Cisco Wireless IP Phone 7920.

## **Using the Removed IP Phones Report**

The Removed IP Phones report lists phones that have been removed during the previous 1 to 30 days. Operations Manager gathers the information used in this report every 5 minutes (see Understanding IP Phone Movement Tracking, page 13-28.) Therefore, you can run this report and obtain fresh data about once every 5 minutes.

- Step 1 Select Reports > Audio Phones and Applications > IP Phone Status Changes > Removed IP Phones. The IP Phone Status reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The Removed IP Phones report appears in a new window, displaying the information described in the following table.

| Column          | Description   |
|-----------------|---|
| Extension       | Extension number of the IP phone.   |
| IP Address      | IP address of the IP phone.   |
| MAC Address     | MAC address of the IP phone.  |
| CCM/CME Address | Cisco Unified Communications Manager or Cisco Unified Communications<br>Manager Express address.  |
| Switch Address  | IP address of the switch to which the IP phone was previously connected.  |
| Switch Port     | Switch port to which the IP phone was previously connected.   |
| Time            | Time that the phone was removed from Cisco Unified Communications Manager.  |
|                 | <b>Note</b> Removal date and time are taken directly from Cisco Unified Communications Manager without adjustment for time zone differences, if any exist, between Cisco Unified Communications Manager and Operations Manager systems. |
| Indication      | Indicates the Cisco Unified Communications Manager registration status of the IP phone: removed.  |



The Removed IP Phone report is not supported for Cisco Wireless IP Phone 7920.

## **Using the Extension Number Changes Report**

The Extension Number Changes report lists phones that have changed extension numbers during the previous 1 to 30 days. Operations Manager gathers the information used in this report every 5 minutes (see Understanding IP Phone Movement Tracking, page 13-28.) Therefore, you can run this report and obtain fresh data about once every 5 minutes.

- Step 1 Select Reports > Audio Phones and Applications > IP Phone Status Changes > Extension Number Changes. The IP Phone Status reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The Extension Number Changes report appears in a new window, displaying the information described in the following table.

| Column         | Description  |
|----------------|--|
| Extension      | Extension number of the IP phone.  |
| IP Address     | IP address of the IP phone.  |
| MAC Address    | MAC address of the IP phone.   |
| CCM Address    | Cisco Unified Communications Manager address.                              |
| Switch Address | IP address of the switch to which the IP phone was previously connected.   |
| Switch Port    | Switch port to which the IP phone was previously connected.                |
| Time           | Time that Operations Manager determined that the extension number changed. |



The Extension Number Changes report is not supported for Cisco Wireless IP Phone 7920.

## **Using the Suspect Phone Report**

The Suspect Phone report displays the attributes of all IP phones in your network that:

- Have not registered with a Cisco Unified Communications Manager.
- Have made an unsuccessful attempt to register with a Cisco Unified Communications Manager.
- Step 1 Select Reports > Audio Phones and Applications > IP Phone Status Changes > Suspect. The IP Phone Status reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. If there are any suspect IP phones, the Suspect Phone report appears in a new window, displaying the information described in the following table.

| Column         | Description   |
|----------------|---|
| Extension      | Extension number of the suspect IP phone.   |
| IP Address     | IP address of the suspect IP phone.   |
| MAC Address    | MAC address of the suspect IP phone.  |
| Switch Address | IP address of the switch to which the suspect IP phone is connected.                    |
| Switch Port    | Switch port used by the suspect IP phone.   |
| Indication     | Indicates the Cisco Unified Communications Manager registration status of the IP phone. |

 $\mathcal{P}$ 

Some IP phones appear marked as Suspect when they are not. To correct this, make sure that the Cisco Unified Communications Manager is managed by Operations Manager. You can check the status of the Cisco Unified Communications Manager on the Device Details report; see Viewing Device Details, page 16-34.

- If the Cisco Unified Communications Manager is not managed by Operations Manager, add it to Operations Manager.
- If the Cisco Unified Communications Manager is managed by Operations Manager but is not reachable, the cause may be loss of connectivity with Operations Manager. Make sure that connectivity with Operations Manager is restored.



The Suspect Phone report is not supported for Cisco Wireless IP Phone 7920.

### Using the Duplicate MAC/IP Address Report

The Duplicate MAC/IP Address report lists the attributes of all IP phones in your network that have:

- Duplicate MAC addresses; that is, a phone that has the same MAC address as another phone but a different IP address.
- Duplicate IP addresses; that is, a phone that has the same IP address as another phone but a different MAC address.

Operations Manager does not show a multihomed host as a phone with a duplicate MAC address.

Note

For the Duplicate MAC/IP Address report to display the correct information, the switch to which the phone is connected must be monitored by Operations Manager. If the switch is not monitored by Operations Manager, the report will not display any information.

Step 1 Select Reports > Audio Phones and Applications > IP Phone Status Changes > Duplicate MAC/IP Address. The IP Phone Status reports page appears.

Step 2 Select the time period (24 hours - 30 days) from the list and click View. The Duplicate MAC/IP Address IP Phone report appears, displaying the information described in the following table.

| Column         | Description   |
|----------------|---|
| Extension      | Extension number of the duplicate IP phone.   |
| IP Address     | One of the following:   |
|                | • If the problem is a shared MAC address, the IP address of the duplicate IP phone                    |
|                | • If the problem is a shared IP address, the IP address in question                                   |
| MAC Address    | One of the following:   |
|                | • If the problem is a shared IP address, the MAC address of the duplicate IP phone                    |
|                | • If the problem is a shared MAC address, the MAC address in question                                 |
| Switch Address | IP address of the switch to which the duplicate IP phone is connected.                                |
| Switch Port    | Switch port used by the duplicate IP phone.   |
| Indication     | Indicates the Cisco Unified Communications Manager registration status of the IP phone: duplicate ip. |

## **Exporting IP Phone Outage Status Reports**

Use this procedure to enable Operations Manager to generate IP Phone Outage Status reports once every 24 hours and store them on the Operations Manager system in comma-separated values (CSV) and PDF formats. The creation date and time are used to name the report files. The filename format is typeofreport\_date\_time.filetype.

Note

Operations Manager does not automatically purge these report files. You must remove them manually.

**Step 1** Select **Reports > Audio Phones and Applications > IP Phone Status Changes > Export**. The automatically Export 24-Hour IP Phone Status reports page appears, displaying the information described in the following table.

| GUI Element   | Description/Action   |  |
|---------------|--|--|
| Reports pane  | For each IP Phone Outage Status report that you want to generate and save nightly, select at least one of the following:                             |  |
|               | • CSV check box—Save the report in CSV format.   |  |
|               | • PDF check box—Save the report in PDF format.   |  |
| Generate pane | • Save at—A default location for storing the reports on the Operations<br>Manager server is displayed; you can enter another location on the server. |  |
|               | • E-mail to—(Optional) Enter a complete e-mail address.  |  |

Step 2 Click Apply.

## **Understanding IP Phone Movement Tracking**

Operations Manager gathers information from switches and Cisco Unified Communications Managers every 5 minutes to identify these types of IP phone moves:

- Intercluster—A phone that was previously registered with one Cisco Unified Communications Manager cluster is now registered with a different cluster.
- Physical—A phone that was physically connected to one switch port is now physically connected to a different switch port.

Operations Manager gathers this information only for phones that run Cisco Discovery Protocol (CDP), such as Cisco Unified IP Phone. For supported models, see the *Supported and Interoperable Devices and Software Table for Cisco Unified* Operations Manager. Operations Manager stores this information for a period of 30 days, after which it is purged from the database. (For information about the daily purging schedule, see Setting System-Wide Parameters Using System Preferences, page 20-10.)

Each time IP Phone Movement Tracking runs, fresh information becomes available for the following reports:

- IP Phone Audit
- IP Phone Move
- Removed IP Phones
- Video Phone Audit
- Video Phone Move
- Removed Video Phones

## **Understanding Phone Polling**

The following information appears in phone reports and is gathered by Operations Manager directly from IP phones, daily beginning at 4 a.m:

- Serial Number—IP phone serial number
- Application Load ID—Identifier of the firmware running on the phone
- Load ID—Identifier of the factory-installed load running on the phone

## **Using Video Phones Reports**

## Note

If you do not have the required software license, you will not be able to use Video Phones reports.

Video Phones reports provide two types of reports: inventory and video phone status change:

- Inventory reports—Provide detailed video phone data, reflecting the current status of video phones in your network. These reports enable you to search for a few video phones, list a specific set of video phones—such as phones connected to a switch or phones in SRST mode—or view all video phones and lines:
  - Search—Use Search to view information for a few video phones or a single video phone; search enables you to find phones using all or part of an extension number, IP address, or MAC address. See Searching for Video Phones, page 13-30.
  - Inventory Analysis—Use the Inventory Analysis report to display video phones that meet criteria that you specify; for example, video phones that are registered to a particular Cisco Unified Communications Manager or video phones that are not connected to particular switches. See Generating the Video Phone Inventory Analysis Report, page 13-32 and 3.
  - Video Phones/Lines—Use the Video Phones/Lines report to view data for all video phones that Operations Manager is monitoring. See Understanding the All Video Phones/Lines Report, page 13-35 and Understanding Video Phone Reports, page 13-38.
  - TelePresence—Use the TelePresence report to view data for all TelePresence video phone devices and the Cisco Unified IP Phone 7970 associated with the corresponding TelePresence. See Generating the TelePresence Report, page 13-37.
  - SRST Video Phones—Use the SRST Video Phones report to view data for video phones that are configured for Survivable Remote Site Telephony (SRST) only. See Generating the SRST Video Phones Report, page 13-38.



Video phones that are configured for SRST are also included in the All Video Phones/Lines report and can be included in the Inventory Analysis report.

 SIP Video Phones—Use the SIP Video Phones report to view data for all SIP video phones that Operations Manager is monitoring. See Generating the SRST Video Phones Report, page 13-38.

When a web interface is accessible for a video phone, you can open it from most video phone reports by clicking the hyperlink for one of the following:

- Extension number
- MAC address
- Video phone IP address

For more information, see Opening an IP Phone Web Interface, page 13-18.

- Video Phone Status Changes reports—Provide data for video phones that have undergone a status change during the previous 1 to 30 days:
  - Video Phone Move—Use the Video Phone Move report to view data for phones that have been connected to a different switch or switch port or that have registered to a different Cisco Unified Communications Manager. See Using the Video Phone Move Report, page 13-43.
  - Video Phone Audit—Use the Video Phone Audit report to obtain a summary of changes, including data for phones that have moved, been removed, undergone an extension number change, appeared in inventory with a duplicate MAC or IP address, or become suspect. See Using the IP Phone Audit Report, page 13-22.
  - Removed Video Phones—See Using the Removed Video Phones Report, page 13-45.
  - Extension Number Change—See Using the Video Phone Extension Number Changes Report, page 13-46.

For more information, see:

- Using Video Phone Status Changes Reports, page 13-43
- Understanding the Time Period Covered by Phone Status Changes Reports, page 13-20
- Tracking Phone Outage Status when a Cisco Unified Communications Manager Is Down, page 13-21

## **Generating Video Phone Inventory Reports**

This topic includes the following:

- Searching for Video Phones, page 13-30
- Generating the Video Phone Inventory Analysis Report, page 13-32
- Understanding the All Video Phones/Lines Report, page 13-35
- Generating the All Video Phones/Lines Report, page 13-35
- Generating the TelePresence Report, page 13-37
- Generating the SRST Video Phones Report, page 13-38
- Generating the SIP Video Phones Report, page 13-38

### **Searching for Video Phones**

Use Search to find one or only a few video phones in your network. Search displays information for one phone at a time; you can page back and forth to view information for each phone when multiple phones are found. You can search for phones using all or part of an extension number, IP address, or MAC address.

When you want to find many phones—for example, all video phones registered with a Cisco Unified Communications Manager or all video phones connected to a switch—use the Inventory Analysis report; see Generating the Inventory Analysis Report, page 13-5.

- Step 1 Select Reports > Video Phones > Search. The Find Video Phones page appears.
- **Step 2** In the Find Video Phones Where pane:
  - **a**. Select one of the following:
    - Extension number
    - IP address
    - MAC address
  - **b**. Then select one of the following:
    - is exactly
    - begins with
    - contains
    - ends with
  - c. Enter a value.

**Step 3** Click **View**. The Video Phone Details dialog box appears, displaying the information described in the following table.

#### Table 13-7 Video Phone Details

| Row                | Description  |
|--------------------|--|
| Extension          | Extension number of the video phone; for example, 4000. Click the hyperlink to open the web interface on the video phone (see Opening an IP Phone Web Interface, page 13-18).                          |
| IP Address         | IP address of the video phone; for example, 10.76.38.65. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).                               |
| MAC Address        | MAC address of the video phone; for example, 003094c40454, or 00-30-94-c4-04-54. Click the hyperlink to open the web interface on the video phone (see Opening an IP Phone Web Interface, page 13-18). |
| CCM Address        | Address of the Cisco Unified Communications Manager (CCM) with which the video phone is registered; for example, 10.76.38.70.  |
| Switch Address     | IP address of the switch to which the video phone is connected; for example, 10.76.29.162.   |
| Switch Name        | Switch to which the video phone is connected.  |
| Switch Port        | Switch port to which the video phone is connected; for example, Fa0/12.  |
| Port Status        | Status of the switch port to which the video phone is connected: up or down.   |
| Video Phone Status | Cisco Unified Communications Manager registration status of the video phone:   |
|                    | • yes—The video phone is registered with a Cisco Unified Communications Manager.   |
|                    | • no—The video phone is not registered with a Cisco Unified Communications Manager.  |
| Video Phone Model  | Cisco video phone model number.  |
| Protocol           | Protocol the phone is using to communicate with Cisco Unified Communications Manager.  |
|                    | <b>Note</b> Only SCCP and SIP phones will be discovered. H.323 and MGCP protocols are not currently supported.   |
| VLAN Name          | Name of the VLAN in the switch (a user-defined name); for example, voice.  |
| VLAN ID            | ID of the VLAN in the switch to which the video phone is connected; for example, 100.  |
| SRST Router        | IP address of the router that the phone is using for SRST.   |
| SRST Mode          | Can be one of the following:   |
|                    | • yes—The phone is in SRST mode  |
|                    | • no—The phone is not in SRST mode   |
|                    | • ?—The phone is suspected to be in SRST mode  |
|                    | • -(dash)—The phone is not an SRST phone   |

- **a.** To display the information in print-friendly format in a new browser window, click **Print**; print the information, using the browser print function.
- **b.** If search results include more than one phone, view them by clicking Next or Prev.

For more information, see the following topic:

• Troubleshooting Tips for Audio Phones and Applications Reports and Video Phones Reports, page 13-19

## **Generating the Video Phone Inventory Analysis Report**

Use Inventory Analysis to search for video phones in your network and display them in a report.

### **Before You Begin**

Inventory Analysis searches for phones using:

- An implicit "or" within each field—If you enter more than one value in a field, Inventory Analysis searches for phones that match any value that you entered.
- An implicit "and" for all fields—If you enter values in more than one field, Inventory Analysis searches for phones that match at least one value from each field.

For example, if you enter two video phone models in the Video Phone Model field, the Inventory Analysis report that results includes all phones of these models. If, in addition, you enter a VLAN ID and a switch, Inventory Analysis searches for phones that meet all these criteria; the report that results includes only phones of the models specified that are connected to the switch and in the VLAN that you selected.

Step 1 Select Reports > Video Phones > Inventory Analysis. The Find Video Phones page appears.

**Step 2** Enter values in one or more fields, described in the following table.

| GUI Element  | Description/Action                        |
|--|---|
| Find Video Phones<br>Where list boxes and<br>field | From left to right:                       |
|  | • Select one of the following:            |
|  | – Extension number                        |
|  | – IP Address                              |
|  | – MAC Address                             |
|  | • Then select one of the following:       |
|  | - is exactly                              |
|  | - begins with                             |
|  | – contains                                |
|  | – ends with                               |
|  | • Enter a value.                          |
| VLAN Name field                                    | Enter the name of the VLAN.               |
| VLAN ID field                                      | Enter the VLAN ID.                        |
| Video Phone Status                                 | Select one:                               |
| radio buttons                                      | • Registered                              |
|  | • Unregistered                            |
|  | • All—Registered and unregistered phones. |

| GUI Element                  | Description/Action  |
|------------------------------|---|
| SRST radio buttons           | Select one:   |
|                              | • SRST—Configured to fail over to an SRST router in case of a WAN link failure.   |
|                              | • Non-SRST—Not configured for SRST.   |
|                              | • All—SRST and non-SRST.  |
| Protocol radio               | Select one:   |
| buttons                      | • SCCP—Phones using Skinny Client Control Protocol.   |
|                              | • SIP—Phones using Session Initiation Protocol.   |
|                              | • All—SCCP and SIP.   |
| Video Phone Type<br>field    | Enter a comma-separated list of phone models. By default, all supported phone models are included in this field. Edit the entries in the field directly or select from a list of phone models, as follows:  |
|                              | <b>1.</b> Click III . The Select Video Phone Models list appears.   |
|                              | 2. Select the desired video phone models from the list. (Use the Control key or the Shift key to select more than one video phone model from the list.)   |
|                              | 3. Click OK.  |
| CCM/CCM Cluster/<br>CME pane | • Exclude check box—Deselected by default. Select to exclude phones that belong to any Cisco Unified Communications Manager, Cisco Unified Communications Manager cluster, and Cisco Unified Communications Manager Express in the list box.                      |
|                              | • List box—Enter a comma-separated list of Cisco Unified Communications<br>Managers, Cisco Unified Communications Manager clusters, and instances<br>of Cisco Unified Communications Manager Express, or select them as<br>follows:                               |
|                              | <ol> <li>Click I . The Select CCM/CCM Cluster/CME dialog box<br/>appears.</li> </ol>  |
|                              | <ol> <li>In the CCM/CCM Cluster/CME Selector, expand groups and select one<br/>or more of the following: Cisco Unified Communications Manager,<br/>Cisco Unified Communications Manager Cluster, and Cisco Unified<br/>Communications Manager Express.</li> </ol> |
|                              | <b>3.</b> Click <b>OK</b> . The dialog box closes and the Find Video Phones screen displays your selections in the CCM/CCM Cluster/CME list box.  |

| GUI Element      | Description/Action   |
|------------------|--|
| Switch pane      | • Exclude check box—Deselected by default. Select to exclude phones that are connected to any switch in the list box.              |
|                  | • List box—Enter a comma-separated list of switches, or select them as follows:  |
|                  | <ol> <li>Click . The Inventory Analysis Switch Selection dialog box appears.</li> </ol>  |
|                  | 2. In the Switch Selector, expand groups and select switches.  |
|                  | <b>3.</b> Click <b>OK</b> . The dialog box closes and the Find Video Phones screen displays your selection in the Switch list box. |
| SRST Router pane | • Exclude check box—Deselected by default. Select to exclude phones that use any SRST router in the list box.                      |
|                  | • List box—Enter a comma-separated list of routers, or select them as follows:   |
|                  | 1. Click <i>Importantian Click</i> . The Inventory Analysis Router Selection dialog box appears.                                   |
|                  | 2. In the Router Selector, expand groups and select routers.   |
|                  | <b>3.</b> Click <b>OK</b> . The dialog box closes and the Find Video Phones screen displays your selection in the Router list box. |

## **Step 3** Click **View**. The Inventory Analysis Report appears in another window. See Understanding Video Phone Reports, page 13-38.

You might not be able to see the list of Cisco Unified Communications Managers or switches in the popup window that appears when you click I . This occurs when the PIFServer process is down. Do the following:

- Check the status of PIFServer by using the command pdshow PIFServer from the command line.
- If PIFServer is down, use the Common Services start function. To do this:
  - 1. From the Operations Manager home page, click **CiscoWorks** in the upper right-hand corner of the window. The CiscoWorks home page opens.
  - 2. Under Common Services, select Server > Admin > Processes. The Process Management page appears, displaying process names in a table.
  - 3. Locate the PIFserver process in the table, select the check box for it, and click Start.

# <u>Note</u>

Alternatively, you can bring PIFServer up using the command **pdexec PIFServer** from the command line. Use this approach if, for example, the web server is down.

## **Generating the All Video Phones/Lines Report**

- Step 1 Select Reports > Video Phones > All Video Phones/Lines. The All IP Phones/Lines window appears.
- Step 2Select Video Phones from the list, and click View. The All Video Phones/Lines report appears,<br/>displaying the information described in Understanding Video Phone Reports, page 13-38.



You can also generate the All Video Phones/Lines from the Monitoring Dashboard tab by selecting **Click to View All Phones** in the Video Phone Status pane.

## **Understanding the All Video Phones/Lines Report**

The All Video Phones/Lines report lists video phones that match the criteria that you entered. By default, these reports display only these columns: Extension, User, IP Address, MAC Address, Model, Regd, CCM, Switch Address, and Port. You can hide these columns and select among additional columns to display. See Selecting Columns to Display and to Hide on a Phone Inventory Report, page 13-17.

Table 13-8 describes all possible columns of data that can appear on the report.

| Columns and<br>Buttons | Description/Action  |
|------------------------|---|
| Number                 | The row number; starting from 1.  |
| Check box              | Select phones that you would like to:   |
|                        | • Print—Include selected phones in a new window in print-friendly format. (See Phones Report Tool Buttons, page 13-13.)   |
|                        | • Export to a file—Include selected phones in a PDF or CSV file. (See Phones Report Tool Buttons, page 13-13.)  |
|                        | • Launch a test on—Include selected phones in tests that you create from the Launch button when it is present at the bottom of the report. (See Launching Tests for Selected Audio Phones, page 13-18.) |
| Extn.                  | Extension number of the video phone; for example, 4000. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).                                 |
| User                   | Username obtained using LDAP if you have configured an LDAP server in Operations<br>Manager. See Configuring LDAP, page 16-43 and Obtaining Usernames from LDAP for<br>IP Phone Reports, page 13-18.    |
| IP Address             | IP address of the video phone; for example, 10.76.38.65. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).                                |
| MAC<br>Address         | MAC address of the video phone; for example, 003094c40454, or 00-30-94-c4-04-54. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).        |
| Model                  | Model number of the video phone; for example, 7902, 7905, 7910, 7912, 7920, 7935, 7940, 7960, or 7970.  |

Table 13-8All Video Phones/Lines Report

| Table 13-8         | All video Phones/Lines Report   |  |
|--------------------|---|--|
| Protocol           | Protocol the phone is using to communicate with Cisco Unified Communications<br>Manager or Cisco Unified Communications Manager Express.  |  |
|                    | <b>Note</b> Only SCCP and SIP phones will be discovered. H.323 and MGCP protocols are not currently supported.  |  |
| Regd.              | Registration status of the video phone with respect to Cisco Unified Communications<br>Manager or Cisco Unified Communications Manager Express. Displays <b>yes</b> if the vide<br>phone is registered or <b>no</b> if the video phone is not registered. |  |
| ССМ                | One of the following:   |  |
|                    | CCM—Cisco Unified Communications Manager  |  |
|                    | CCE—Cisco Unified Communications Manager Express  |  |
| CCM/CME<br>Name    | DNS name of the Cisco Unified Communications Manager or Cisco Unified<br>Communications Manager Express with which the video phone is registered.   |  |
| CCM/CME<br>Address | IP address of the Cisco Unified Communications Manager or Cisco Unified Communications Manager Express with which the video phone is registered.  |  |
| Switch<br>Name     | Name of the switch to which the video phone is connected.   |  |
| Switch<br>Address  | IP address of the switch to which the video phone is connected.   |  |
| Port               | Switch port used by the video phone; for example, Fa0/12.   |  |
| Port Status        | Status of the port used by the video phone: up or down.   |  |
| VLAN<br>Name       | Name of the VLAN (user-defined name); for example, voice.   |  |
| VLAN ID            | ID of the VLAN for the video phone; for example, 100.   |  |
| SRST Mode          | One of the following:   |  |
|                    | • yes—The phone is in SRST mode   |  |
|                    | • no—The phone is not in SRST mode  |  |
|                    | • ?—The phone is suspected to be in SRST mode   |  |
|                    | • —(dash)—The phone is not an SRST phone  |  |
| SRST<br>Router     | One of the following:   |  |
|                    | • IP address of the router that the phone is using for SRST   |  |
|                    | • —(dash)   |  |
| Serial No.         | IP phone serial number  |  |
|                    | Note This information is obtained by phone polling. See Understanding Phone Polling, page 13-28.  |  |
| Application<br>ID  | Identifier of the firmware running on the phone   |  |
|                    | Note This information is obtained by phone polling. See Understanding Phone Polling, page 13-28.  |  |

| Load ID          | Identifier of the factory-installed load running on the phone   |  |
|------------------|---|--|
|                  | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |  |
| Launch<br>button | Click and select a menu item to configure tests for the video phones selected on this report.           |  |

#### Table 13-8 All Video Phones/Lines Report

### **Generating the TelePresence Report**

The TelePresence report shows a list of the TelePresence video phone devices and the Cisco Unified IP Phone 7970 associated with the corresponding TelePresence system.

| <b>Columns and Buttons</b> | Description/Action  |
|----------------------------|---|
| Number                     | The row number; starting from 1.  |
| Check box                  | Select phones that you would like to:   |
|                            | • Print—Include selected phones in a new window in print-friendly format. (See Phones Report Tool Buttons, page 13-13.)   |
|                            | • Export to a file—Include selected phones in a PDF or CSV file. (See Phones Report Tool Buttons, page 13-13.)  |
| Extn.                      | Extension number of the video phone; for example, 4000. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).   |
| User                       | Username obtained using LDAP if you have configured an LDAP server in Operations Manager. See Configuring LDAP, page 16-43 and Obtaining Usernames from LDAP for IP Phone Reports, page 13-18.  |
| IP Address                 | IP address of the video phone; for example, 10.76.38.65. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).  |
| MAC Address                | MAC address of the video phone; for example, 003094c40454, or 00-30-94-c4-04-54. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).  |
| Model                      | Model number of the video phone.  |
| Regd.                      | Registration status of the video phone with respect to Cisco Unified<br>Communications Manager or Cisco Unified Communications Manager<br>Express. Displays <b>yes</b> if the video phone is registered or <b>no</b> if the video<br>phone is not registered. |
| CCM/CME Address            | IP address of the Cisco Unified Communications Manager or Cisco Unified<br>Communications Manager Express with which the video phone is registered.   |

#### Table 13-9 TelePresence Report

**Step 1** Select **Reports > Video Phones > TelePresence**. The TelePresence report appears in a new window, displaying information for TelePresence video phone devices and the associated Cisco Unified IP Phone 7970.For more information, see Understanding Video Phone Reports, page 13-38.

|                            | ,   |
|----------------------------|---|
| <b>Columns and Buttons</b> | Description/Action  |
| Switch Address             | IP address of the switch to which the video phone is connected. |
| -                          |   |

TelePresence Report (continued)

# Generating the SRST Video Phones Report

Port

Table 13-9

The SRST Video Phones report shows a list of phones that are configured for Survivable Remote Site Telephony (SRST).

Switch port used by the video phone; for example, Fa0/12.

#### **Generating the SIP Video Phones Report**

The SIP Video Phones report shows a list of SIP video phones.

Step 1 Select Reports > Video Phones > SIP Video Phones. The SIP Phones report appears in a new window, displaying information for SIP video phones only. For more information, see Understanding Video Phone Reports, page 13-38.

### **Understanding Video Phone Reports**

Table 13-5 describes the data displayed in the following reports:

- Inventory Analysis—Includes phones that match criteria that you specify.
- All Video Phones/Lines—Includes all video phones, including video phones that are configured for SRST.



**Note** You can filter the All Video Phones/Lines report to include only the phones that you want to see.

- SRST Video Phones—Includes only phones that are configured for SRST.
- SIP Video Phones—Includes only SIP video phones.

By default, these reports display only these columns: Extension, User, IP Address, MAC Address, Model, Regd, CCM, Switch Address, and Port. You can hide these columns and select among additional columns to display. See Selecting Columns to Display and to Hide on a Phone Inventory Report, page 13-17.

Table 13-10 describes all possible columns of data that can appear on the reports.

Step 1 Select Reports > Video Phones > SRST Video Phones. The SRST Video Phones report appears in a new window, displaying information for the SRST configuration only. For more information, see Understanding Video Phone Reports, page 13-38.

| Columns and Buttons | Description/Action  |  |
|---------------------|---|--|
| Number              | The row number; starting from 1.  |  |
| Check box           | Select phones that you would like to:   |  |
|                     | • Print—Include selected phones in a new window in print-friendly format. (See Phones Report Tool Buttons, page 13-13.)   |  |
|                     | • Export to a file—Include selected phones in a PDF or CSV file. (See Phones Report Tool Buttons, page 13-13.)  |  |
|                     | • Launch a test on—Include selected phones in tests that you create<br>from the Launch button when it is present at the bottom of the report.<br>(See Launching Tests for Selected Audio Phones, page 13-18.)   |  |
| Extn.               | Extension number of the video phone; for example, 4000. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).   |  |
| User                | Username obtained using LDAP if you have configured an LDAP server<br>in Operations Manager. See Configuring LDAP, page 16-43 and Obtaining<br>Usernames from LDAP for IP Phone Reports, page 13-18.  |  |
| IP Address          | IP address of the video phone; for example, 10.76.38.65. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).  |  |
| MAC Address         | MAC address of the video phone; for example, 003094c40454, or 00-30-94-c4-04-54. Click the hyperlink to see more details of the video phone (see Opening an IP Phone Web Interface, page 13-18).  |  |
| Model               | Model number of the video phone.  |  |
| Protocol            | Protocol the phone is using to communicate with Cisco Unified<br>Communications Manager or Cisco Unified Communications Manager<br>Express.   |  |
|                     | <b>Note</b> Only SCCP and SIP phones will be discovered. H.323 and MGCP protocols are not currently supported.  |  |
| Regd.               | Registration status of the video phone with respect to Cisco Unified<br>Communications Manager or Cisco Unified Communications Manager<br>Express. Displays <b>yes</b> if the video phone is registered or <b>no</b> if the video<br>phone is not registered. |  |
| ССМ                 | One of the following:   |  |
|                     | CCM—Cisco Unified Communications Manager.   |  |
|                     | • CCE—Cisco Unified Communications Manager Express.   |  |
| CCM/CME Name        | DNS name of the Cisco Unified Communications Manager or Cisco<br>Unified Communications Manager Express with which the video phone is<br>registered.  |  |
| CCM/CME Address     | IP address of the Cisco Unified Communications Manager or Cisco<br>Unified Communications Manager Express with which the video phone is<br>registered.  |  |
| Switch Name         | Name of the switch to which the video phone is connected.   |  |

| Table 13-10 | Video Phone Reports |
|-------------|---------------------|
|-------------|---------------------|

| Columns and Buttons | Description/Action  |
|---------------------|---|
| Switch Address      | IP address of the switch to which the video phone is connected.   |
| Port                | Switch port used by the video phone; for example, Fa0/12.   |
| Port Status         | Status of the port used by the video phone: up or down.   |
| VLAN Name           | Name of the VLAN (user-defined name); for example, voice.   |
| VLAN ID             | ID of the VLAN for the video phone; for example, 100.   |
| SRST Mode           | One of the following:   |
|                     | • yes—The phone is in SRST mode.  |
|                     | • no—The phone is not in SRST mode.   |
|                     | • ?—The phone is suspected to be in SRST mode.  |
|                     | • —(dash)—The phone is not an SRST phone.   |
| SRST Router         | One of the following:   |
|                     | • IP address of the router that the phone is using for SRST.  |
|                     | • —(dash).  |
| Serial No.          | IP phone serial number.   |
|                     | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |
| Application ID      | Identifier of the firmware running on the phone.  |
|                     | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |
| Load ID             | Identifier of the factory-installed load running on the phone.  |
|                     | <b>Note</b> This information is obtained by phone polling. See Understanding Phone Polling, page 13-28. |
| Launch button       | Click and select a menu item to configure tests for the video phones selected on this report.           |

| Table 13-10 | Video Phone Reports (continued) |
|-------------|---------------------------------|
|-------------|---------------------------------|

For more information, see the following topic:

 Troubleshooting Tips for Audio Phones and Applications Reports and Video Phones Reports, page 13-19

## **Filtering a Video Phones Report**

From a Video Phones report, click the Filter button when present. A filter dialog box opens.



Filtering is performed using:

- An implicit "or" within each field—If you enter more than one value in a field, phones that match any value are included in the report.
- An implicit "and" for all fields—If you enter values in more than one field, phones that match at least one value from each field are included in the report after filtering.

For example, if you enter two phone models, such as 7910 and 7935, in the Video Phone Model field, the report that results includes all phones of these models. If, in addition, you enter a VLAN ID and a switch, the report is filtered to include only phones of the models specified that are connected to the switch and in the VLAN that you selected.

**GUI Element Description/Action** Find Video Phones From left to right: where list boxes and • Select one of the following: field - Extension number - IP Address - MAC Address • Then select one of the following: - is exactly - begins with - contains - ends with • Enter a value. VLAN Name field Enter the name of the VLAN. VLAN ID field Enter the VLAN ID. Video Phone Status Select one: radio buttons Registered • Unregistered All—Registered and unregistered phones. SRST radio buttons Select one: • SRST—Configured to fail over to an SRST router in case of a WAN link failure. Non-SRST—Not configured for SRST. • All—SRST and non-SRST. IP Phone Types field Enter a comma-separated list of phone types. Edit the entries in the field directly or select from a list of phone models, as follows: **1.** Click **I** . The Select IP Phone Types list appears. 2. Select the desired video phone types from the list. (Use the Control key or the Shift key to select more than one video phone type from the list.) 3. Click OK.

Step 1

**p1** Enter values in one or more fields, described in the following table.

| GUI Element      | Description/Action  |
|------------------|---|
| CCM/CME pane     | • Exclude check box—Deselected by default. Select to exclude phones that belong to any Cisco Unified Communications Manager, Cisco Unified Communications Manager cluster, and Cisco Unified Communications Manager Express in the list box.                                |
|                  | • List box—Enter a comma-separated list of Cisco Unified Communications<br>Managers, Cisco Unified Communications Manager clusters, and<br>instances of Cisco Unified Communications Manager Express, or select<br>them as follows:   |
|                  | <ol> <li>Click Intervention of the select CCM/CCM Cluster/CME dialog box appears.</li> </ol>  |
|                  | <ol> <li>In the CCM/CCM Cluster/CME Selector, expand groups and select<br/>one or more instances of the following: Cisco Unified<br/>Communications Manager, Cisco Unified Communications Manager<br/>cluster, and Cisco Unified Communications Manager Express.</li> </ol> |
|                  | 3. Click <b>OK</b> .  |
| Switch pane      | • Exclude check box—Deselected by default. Select to exclude phones that are connected to any switch in the list box.   |
|                  | • List box—Enter a comma-separated list of switches, or select them as follows:   |
|                  | <ol> <li>Click I . The Inventory Analysis Switch Selection dialog box<br/>appears.</li> </ol>   |
|                  | 2. In the Switch Selector, expand groups and select switches.   |
|                  | 3. Click <b>OK</b> .  |
| SRST Router pane | • Exclude check box—Deselected by default. Select to exclude phones that use any SRST router in the list box.   |
|                  | • List box—Enter a comma-separated list of switches, or select them as follows:   |
|                  | <ol> <li>Click Inventory Analysis Router Selection dialog box appears.</li> </ol>   |
|                  | 2. In the Router Selector, expand groups and select routers.  |
|                  | 3. Click <b>OK</b> .  |

**Step 2** Click **OK**. The filter dialog box closes and the video phone report refreshes. For more information, see Understanding IP Phone Inventory Reports, page 13-11.

You might not be able to see the list of Cisco Unified Communications Managers or switches in the popup window that appears when you click  $\boxed{mv}$ . This occurs when the PIFServer process is down. Do the following:

- Check the status of PIFServer by using the command pdshow PIFServer from the command line.
- If PIFServer is down, use the Common Services start function. To do this:
  - 1. From the Operations Manager home page, click **CiscoWorks** in the upper right-hand corner of the window. The CiscoWorks home page opens.

- Under Common Services, select Server > Admin > Processes. The Process Management page appears, displaying process names in a table.
- 3. Locate the PIFserver process in the table, select the check box for it, and click Start.

```
٩.
```

**Note** Alternatively, you can bring PIFServer up using the command **pdexec PIFServer** from the command line. Use this approach if, for example, the web server is down.

### **Using Video Phone Status Changes Reports**

Video Phone Status Changes reports supply information for phones that have undergone a status change during the previous 1 to 30 days.

The Video Phone Audit report provides a summary of all of these changes (see Using the Video Phone Audit Report, page 13-44). Additional Video Phone Status Changes reports focus on particular types of changes, as shown in the following table.

| Phone Status Change                                       | Details in this Report  |
|---|---|
| Connection—Connected to a different switch or switch port | Using the Video Phone Move Report, page 13-43                     |
| Extension number change                                   | Using the Video Phone Extension Number Changes Report, page 13-46 |
| Removed   | Using the Removed Video Phones Report, page 13-45                 |

#### **Using the Video Phone Move Report**

The Video Phone Move report displays video phones that have moved, including details about the phone before and after the move. The Video Phone Move report shows the time at which the video phone move was detected, and not the time at which the move occurred.

Information for the Video Phone Move report is gathered every 5 minutes by Video Phone Movement Tracking (see Understanding IP Phone Movement Tracking, page 13-28). Video Phone Movement Tracking checks all the switches and Cisco Unified Communications Managers, identifies the list of changes, and generates the data on video phone moves.

Note

You obtain fresh data for the Video Phone Move report about once every 5 minutes. Close the report and regenerate it to refresh the data.

- Step 1 Select Reports > Video Phones > Video Phone Move. The Video Phone Status Reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The Video Phone Move report appears, displaying the information described in the following table.

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| Column         | Description   |
|----------------|---|
| Extension      | Extension number of the video phone. The Extension column has two subcolumns—Old and New:                     |
|                | • Old—Extension number of the video phone before it was moved.  |
|                | • <b>New</b> —Extension number of the video phone after it was moved.   |
| IP Address     | IP address of the video phone.  |
| MAC Address    | MAC address of the video phone.   |
| CCM Address    | Cisco Unified Communications Manager address. The CCM Address column has two subcolumns:                      |
|                | • Old—CCM address of the video phone before it was moved.   |
|                | • <b>New</b> —CCM address of the video phone after it was moved.  |
| Switch Address | IP address of the switch to which the video phone is connected. The Switch Address column has two subcolumns: |
|                | • Old—Switch address used by the video phone before it was moved.   |
|                | • New—Switch address used by the video phone after it was moved.  |
| Switch Port    | Switch port used by the video phone. The Switch Port column has two subcolumns:                               |
|                | • Old—Switch port used by the video phone before it was moved.  |
|                | • <b>New</b> —Switch port used by the video phone after it was moved.   |
| Time Stamp     | Reflects the date and time that Operations Manager detected the video phone move.                             |

#### <u>P</u> Tip

Phones that have moved and do not run Cisco Discovery Protocol (CDP) do not appear in this report. For example, 30VIP and 12SP+ do not run CDP; you will not see move entries for them.

### **Using the Video Phone Audit Report**

The Video Phone Audit report shows the changes that have occurred in the managed video phone network. For example, this report shows you the video phones that have been added to or deleted from your network, or changes in video phone status. Phone status changes occur, for instance, when a phone becomes unregistered with the Cisco Unified Communications Manager.

You can see what has changed within the last 30 days. Audits are maintained in the database for a period of 30 days, after which they are purged.

Information for the Video Phone Audit report is gathered by IP Phone Movement Tracking (see Understanding IP Phone Movement Tracking, page 13-28). IP Phone Movement Tracking runs every 5 minutes, so you can run the Video Phone Audit Detail report and obtain fresh data about once every 5 minutes. This interval is not configurable.

**Step 1** Select **Reports > Video Phones > Video Phone Audit**. The Video Phone Status Reports page appears.

**Step 2** Select the time period (24 hours - 30 days) from the list and click **View**. The Video Phone Audit report appears, displaying the information described in the following table.

| Column          | Description   |  |
|-----------------|---|--|
| Extension       | Extension number of the video phone.  |  |
| IP Address      | IP address of the video phone.  |  |
| MAC Address     | MAC address of the video phone.   |  |
| CCM/CME Address | Cisco Unified Communications Manager or Cisco Unified Communications<br>Manager Express address.  |  |
| Switch Address  | IP address of the switch to which the video phone is connected.   |  |
| Switch Port     | Switch port used by the video phone.  |  |
| Time            | Time of audit on the Cisco Unified Communications Manager.  |  |
|                 | Note Audit date and time are taken directly from Cisco Unified<br>Communications Manager without adjustment for time zone<br>differences, if any exist, between Cisco Unified Communications<br>Manager and Operations Manager systems. |  |
| Audit Type      | One of the following:   |  |
|                 | • add—Phone added to the network.   |  |
|                 | • remove—Phone removed from the network.  |  |
|                 | • unregistered—From Cisco Unified Communications Manager.   |  |
|                 | • registered—With Cisco Unified Communications Manager.   |  |

### **Using the Removed Video Phones Report**

The Removed Video Phones report lists phones that have been removed during the previous 1 to 30 days. Operations Manager gathers the information used in this report every 5 minutes (see Understanding IP Phone Movement Tracking, page 13-28.) Therefore, you can run this report and obtain fresh data about once every 5 minutes.

- **Step 1** Select **Reports > Video Phones > Removed Video Phones.** The Video Phone Status Reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The Removed Video Phones report appears in a new window, displaying the information described in the following table.

| Column          | Description  |  |
|-----------------|--|--|
| Extension       | Extension number of the video phone.   |  |
| IP Address      | IP address of the video phone.   |  |
| MAC Address     | MAC address of the video phone.  |  |
| CCM/CME Address | Cisco Unified Communications Manager or Cisco Unified Communications<br>Manager Express address.   |  |
| Switch Address  | IP address of the switch to which the video phone was previously connected.  |  |
| Switch Port     | Switch port to which the video phone was previously connected.   |  |
| Time            | Time that the phone was removed from Cisco Unified Communications<br>Manager.  |  |
|                 | <b>Note</b> Removal date and time are taken directly from Cisco Unified<br>Communications Manager without adjustment for time zone<br>differences, if any exist, between Cisco Unified Communications<br>Manager and Operations Manager systems. |  |
| Indication      | Indicates the Cisco Unified Communications Manager registration status of the video phone: removed.  |  |

#### **Using the Video Phone Extension Number Changes Report**

The Extension Number Changes report lists phones that have changed extension numbers during the previous 1 to 30 days. Operations Manager gathers the information used in this report every 5 minutes (see Understanding IP Phone Movement Tracking, page 13-28.) Therefore, you can run this report and obtain fresh data about once every 5 minutes.

- **Step 1** Select **Reports > Video Phones > Extension Number Changes**. The Video Phone Status Reports page appears.
- **Step 2** Select the time period (24 hours 30 days) from the list and click **View**. The Extension Number Changes report appears in a new window, displaying the information described in the following table.

| Column         | Description   |
|----------------|---|
| Extension      | Extension number of the video phone.  |
| IP Address     | IP address of the video phone.  |
| MAC Address    | MAC address of the video phone.   |
| CCM Address    | Cisco Unified Communications Manager address.                               |
| Switch Address | IP address of the switch to which the video phone was previously connected. |
| Switch Port    | Switch port to which the video phone was previously connected.              |
| Time           | Time that Operations Manager determined that the extension number changed.  |

### **Exporting Video Phone Status Changes Reports**

Use this procedure to enable Operations Manager to generate Video Phone Status Changes reports once every 24 hours and store them on the Operations Manager system in comma-separated values (CSV) and PDF formats. The creation date and time are used to name the report files. The filename format is typeofreport\_date\_time.filetype.

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Operations Manager does not automatically purge these report files. You must remove them manually.

Step 1Select Reports > Video Phones > Export. The automatically Export 24-Hour Video Phone Status<br/>Reports page appears, displaying the information described in the following table.

| GUI Element   | Description/Action   |
|---------------|--|
| Reports pane  | For each Video Phone Status Changes report that you want to generate and save nightly, select at least one of the following:                         |
|               | • CSV check box—Save the report in CSV format.   |
|               | • PDF check box—Save the report in PDF format.   |
| Generate pane | • Save at—A default location for storing the reports on the Operations<br>Manager server is displayed; you can enter another location on the server. |
|               | • E-mail to—(Optional) Enter a complete e-mail address.  |

Step 2 Click Apply.

# **Viewing Other Reports**

To view Service Level or Unified CM Express View reports, access the reports via the Monitoring Dashboard. See Understanding Service Level and Unified CM Express Views, page 2-1 or Viewing Large Numbers of Devices and Clusters from the Service Level View, page 2-14.

